

We Claim:

1     1.     A method in a computing system for managing products, the method  
2           comprising:  
3           extracting product management information in a first form that is associated  
4           with a first source computerized product management system;  
5           converting the product management information in the first form into product  
6           management information that is in a second intermediate form; and  
7           converting the product management information in the second intermediate  
8           form into product management information in a target form that  
9           corresponds to a target computerized product management system.

1     2.     The method of Claim 1, further comprising:  
2           using the product management information in the target form to perform at  
3           least one computer-implemented act from a set of computer-  
4           implemented acts comprising:  
5           creating a new product record in the target computerized product  
6           management system; and  
7           updating an existing product management record in the target  
8           computerized product management system.

1     3.     The method of Claim 1, further comprising:  
2           extracting product management information in a third form that is associated  
3           with a second source computerized product management system that

is distinct from the first source computerized product management system;  
converting the product management information in the third form into product management information that is in the second intermediate form;  
converting the product management information in the second intermediate form into product management information in the target form; and  
using the product management information in the target form to perform at least one computer-implemented act from a set of computer-implemented acts comprising:  
creating a new product management record in the target computerized product management system; and  
updating an existing product management record in the target computerized product management system.

4. The method of Claim 1, wherein the second intermediate form includes a list of product elements for defining a hierarchy of data elements, wherein the hierarchy of data elements includes a plurality of product elements which include other elements.

5. The method of Claim 4, wherein each of the plurality of product elements includes one or more elements selected from a group comprising:  
a product identifier;  
a product base data element;  
a product sales data element  
a product configuration data element;  
a related product line element for defining a product line element;

a product list of price type element for defining a plurality of product price type elements;  
a product list of related inventory location element for defining a plurality of product related inventory location elements for the product;  
a list of related product element for defining a plurality of related product elements;  
a product list of related business unit element for defining a product related business unit element; and  
a product custom data element.

6. The method of Claim 5, wherein the product base data element includes one or more elements selected from a group comprising:
- a product category code element;
  - a product description element;
  - an product effective end date element for defining a product's effective validity end date;
  - an product effective start date element for defining a product's effective validity start date;
  - a global product identifier element;
  - a global product classification code element;
  - a global product serial identifier;
  - a global product special handling code element;
  - a product name element;
  - a product number element;
  - a product part number element;
  - a product status code element;

17 a product type code element;  
18 a product unit of measure code element; and  
19 a product vendor part serial number element.

1 7. The method of Claim 5, wherein the product sales data element includes one  
2 or more elements selected from a group comprising:

3 a product field replaceable flag;  
4 a product lead time element;  
5 a product maximum order quantity element;  
6 a product minimum order quantity element;  
7 a product revision number element;  
8 a product orderable flag;  
9 a sales product flag;  
10 a service product flag;  
11 a service instance flag; and  
12 a serialized product flag.

1 8. The method of Claim 5, wherein  
2 the product configuration data element includes a product configuration flag and  
3 a product related class element that is specific to a product;  
4 the product line element includes a product line identifier, a product line base  
5 data element and a product line custom data element, wherein the  
6 product line base data element includes:  
7 a product line description element; and  
8 a product line name element;  
9 each of the plurality of product price type elements includes a product price type  
10 code element;

11 each of the plurality of product related inventory location elements for the  
12 product includes a product inventory location identifier and a product  
13 inventory data element for the product, wherein the product inventory  
14 data element for the product includes one or more elements selected  
15 from:  
16 a product inventory location classification data element, wherein the  
17 product inventory location classification data element includes one  
18 or more elements selected from:  
19 a product movement class code element; and  
20 a product value class code element; and  
21 a product inventory location stocking data element, wherein the product  
22 inventory location stocking data element includes one or more  
23 elements selected from:  
24 a product allocate below safety stock level flag;  
25 a product auto substitute flag;  
26 a product auto allocate flag;  
27 a product maximum inventory level element;  
28 a product minimum inventory level element; and  
29 a product safety stock level element;  
30 each of the plurality of related product elements includes one or more elements  
31 selected from:  
32 a related product identifier;  
33 a related product name element;  
34 a related product number element; and  
35 a related product type code element; and

the product related business unit element includes a product organization identifier and a product business unit data element, wherein the product business unit data element includes a product sales unit of measure code element.

9. A computer-readable medium carrying one or more sequences of instructions for managing products, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform:

extracting product management information in a first form that is associated with a first source computerized product management system;  
converting the product management information in the first form into product management information that is in a second intermediate form; and  
converting the product management information in the second intermediate form into product management information in a target form that corresponds to a target computerized product management system.

10. The computer-readable medium of Claim 9, further comprising:  
using the product management information in the target form to perform at least one computer-implemented act from a set of computer-implemented acts comprising:  
creating a new product record in the target computerized product management system; and  
updating an existing product management record in the target computerized product management system.

11. The computer-readable medium of Claim 9, further comprising:

2 extracting product management information in a third form that is associated  
3 with a second source computerized product management system that  
4 is distinct from the first source computerized product management  
5 system;  
6 converting the product management information in the third form into product  
7 management information that is in the second intermediate form;  
8 converting the product management information in the second intermediate  
9 form into product management information in the target form; and  
10 using the product management information in the target form to perform at  
11 least one computer-implemented act from a set of computer-  
12 implemented acts comprising:  
13 creating a new product management record in the target computerized  
14 product management system; and  
15 updating an existing product management record in the target  
16 computerized product management system.

1 12. The computer-readable medium of Claim 9, wherein the second intermediate  
2 form includes a list of product elements for defining a hierarchy of data  
3 elements, wherein the hierarchy of data elements includes a plurality of  
4 product elements which include other elements.

1 13. The computer-readable medium of Claim 12, wherein each of the plurality of  
2 product elements includes one or more elements selected from a group  
3 comprising:  
4 a product identifier;  
5 a product base data element;  
6 a product sales data element

a product configuration data element;  
a related product line element for defining a product line element;  
a product list of price type element for defining a plurality of product price type elements;  
a product list of related inventory location element for defining a plurality of product related inventory location elements for the product;  
a list of related product element for defining a plurality of related product elements;  
a product list of related business unit element for defining a product related business unit element; and  
a product custom data element.

14. The computer-readable medium of Claim 13, wherein the product base data element includes one or more elements selected from a group comprising:
- a product category code element;
  - a product description element;
  - an product effective end date element for defining a product's effective validity end date;
  - an product effective start date element for defining a product's effective validity start date;
  - a global product identifier element;
  - a global product classification code element;
  - a global product serial identifier;
  - a global product special handling code element;
  - a product name element;
  - a product number element;



15 a product part number element;  
16 a product status code element;  
17 a product type code element;  
18 a product unit of measure code element; and  
19 a product vendor part serial number element.

1 15. The computer-readable medium of Claim 13, wherein the product sales data  
2 element includes one or more elements selected from a group comprising:  
3 a product field replaceable flag;  
4 a product lead time element;  
5 a product maximum order quantity element;  
6 a product minimum order quantity element;  
7 a product revision number element;  
8 a product orderable flag;  
9 a sales product flag;  
10 a service product flag;  
11 a service instance flag; and  
12 a serialized product flag.

1 16. The computer-readable medium of Claim 13, wherein  
2 the product configuration data element includes a product configuration flag  
3 and a product related class element that is specific to a product;  
4 the product line element includes a product line identifier, a product line base  
5 data element and a product line custom data element, wherein the  
6 product line base data element includes:  
7 a product line description element; and  
8 a product line name element;

9 each of the plurality of product price type elements includes a product price  
10 type code element;

11 each of the plurality of product related inventory location elements for the  
12 product includes a product inventory location identifier and a product  
13 inventory data element for the product, wherein the product inventory  
14 data element for the product includes one or more elements selected  
15 from:

16 a product inventory location classification data element, wherein the  
17 product inventory location classification data element includes  
18 one or more elements selected from:

19 a product movement class code element; and

20 a product value class code element; and

21 a product inventory location stocking data element, wherein the  
22 product inventory location stocking data element includes one or  
23 more elements selected from:

24 a product allocate below safety stock level flag;

25 a product auto substitute flag;

26 a product auto allocate flag;

27 a product maximum inventory level element;

28 a product minimum inventory level element; and

29 a product safety stock level element;

30 each of the plurality of related product elements includes one or more  
31 elements selected from:

32 a related product identifier;

33 a related product name element;

34 a related product number element; and

35 a related product type code element; and  
36 the product related business unit element includes a product organization  
37 identifier and a product business unit data element, wherein the  
38 product business unit data element includes a product sales unit of  
39 measure code element.

40 17. A data structure for managing product, the data structure comprising a list of  
41 product element for defining a hierarchy of data elements, wherein the  
42 hierarchy of data elements includes a plurality of product elements which  
43 include other elements.

1 18. The data structure of Claim 17, wherein each of the plurality of product  
2 elements includes one or more elements selected from a group comprising:  
3 a product identifier;  
4 a product base data element;  
5 a product sales data element  
6 a product configuration data element;  
7 a related product line element for defining a product line element;  
8 a product list of price type element for defining a plurality of product price type  
9 elements;  
10 a product list of related inventory location element for defining a plurality of  
11 product related inventory location elements for the product;  
12 a list of related product element for defining a plurality of related product  
13 elements;  
14 a product list of related business unit element for defining a product related  
15 business unit element; and  
16 a product custom data element.

1 19. The data structure of Claim 18, wherein the product base data element  
2 includes one or more elements selected from a group comprising:  
3 a product category code element;  
4 a product description element;  
5 a product effective end date element for defining a product's effective  
6 validity end date;  
7 a product effective start date element for defining a product's effective  
8 validity start date;  
9 a global product identifier element;  
10 a global product classification code element;  
11 a global product serial identifier;  
12 a global product special handling code element;  
13 a product name element;  
14 a product number element;  
15 a product part number element;  
16 a product status code element;  
17 a product type code element;  
18 a product unit of measure code element; and  
19 a product vendor part serial number element.

1 20. The data structure of Claim 18, wherein the product sales data element  
2 includes one or more elements selected from a group comprising:  
3 a product field replaceable flag;  
4 a product lead time element;  
5 a product maximum order quantity element;  
6 a product minimum order quantity element;

7 a product revision number element;  
8 a product orderable flag;  
9 a sales product flag;  
10 a service product flag;  
11 a service instance flag; and  
12 a serialized product flag.

1 21. The data structure of Claim 18, wherein  
2 the product configuration data element includes a product configuration flag and  
3 a product related class element that is specific to a product;  
4 the product line element includes a product line identifier, a product line base  
5 data element and a product line custom data element, wherein the  
6 product line base data element includes:  
7 a product line description element; and  
8 a product line name element;  
9 each of the plurality of product price type elements includes a product price type  
10 code element;  
11 each of the plurality of product related inventory location elements for the  
12 product includes a product inventory location identifier and a product  
13 inventory data element for the product, wherein the product inventory  
14 data element for the product includes one or more elements selected  
15 from:  
16 a product inventory location classification data element, wherein the  
17 product inventory location classification data element includes one  
18 or more elements selected from:  
19 a product movement class code element; and

20 a product value class code element; and  
21 a product inventory location stocking data element, wherein the product  
22 inventory location stocking data element includes one or more  
23 elements selected from:  
24 a product allocate below safety stock level flag;  
25 a product auto substitute flag;  
26 a product auto allocate flag;  
27 a product maximum inventory level element;  
28 a product minimum inventory level element; and  
29 a product safety stock level element;  
30 each of the plurality of related product elements includes one or more elements  
31 selected from:  
32 a related product identifier;  
33 a related product name element;  
34 a related product number element; and  
35 a related product type code element; and  
36 the product related business unit element includes a product organization  
37 identifier and a product business unit data element, wherein the product  
38 business unit data element includes a product sales unit of measure code  
39 element.